



SEQUENCE LISTING

<110> Brice, Alexis
Koutnikova, Hana
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Prades, Catherine
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Rosier-Montus, Marie-Francoise
Corti, Olga

<120> COMPOSITIONS THAT CAN BE USED FOR REGULATING THE ACTIVITY OF PARKIN

<130> ST00005

<140> 09/785,548

<141> 2001-02-20

<160> 50

<170> PatentIn Version 3.2

<210> 1

<211> 1313

<212> DNA

<213> Homo sapiens

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Phe	Arg	His	Gly	Ser	Leu	Ile	Ser	Ile	Asp	Ser	Thr	Cys	Thr	Glu	Met	
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ggc	aat	ttt	gac	aat	gct	aat	gtc	act	gga	gaa	ata	gaa	ttt	gcc	att	144
Gly	Asn	Phe	Asp	Asn	Ala	Asn	Val	Thr	Gly	Glu	Ile	Glu	Phe	Ala	Ile	
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cat	tat	tgc	ttc	aaa	acc	cat	tct	tta	gaa	ata	tgc	atc	aag	gcc	tgt	192
His	Tyr	Cys	Phe	Lys	Thr	His	Ser	Leu	Glu	Ile	Cys	Ile	Lys	Ala	Cys	
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gtg	aag	acc	tac	ctg	ttg	ccc	gac	aga	tcc	tcc	cag	gga	aag	cgc	aag	288
Val	Lys	Thr	Tyr	Leu	Leu	Pro	Asp	Arg	Ser	Ser	Gln	Gly	Lys	Arg	Lys	
				85					90					95		

act	gga	gtc	caa	agg	aac	acc	gtg	gac	ccg	acc	ttt	cag	gag	acc	ttg	336
Thr	Gly	Val	Gln	Arg	Asn	Thr	Val	Asp	Pro	Thr	Phe	Gln	Glu	Thr	Leu	
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aag	tat	cag	gtg	gcc	cct	gcc	cag	ctg	gtg	acc	cgg	cag	ctg	cag	gtc	384
Lys	Tyr	Gln	Val	Ala	Pro	Ala	Gln	Leu	Val	Thr	Arg	Gln	Leu	Gln	Val	
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tcg	gtg	tgg	cat	ctg	ggc	acg	ctg	gcc	cgg	aga	gtg	ttt	ctt	gga	gaa	432
Ser	Val	Trp	His	Leu	Gly	Thr	Leu	Ala	Arg	Arg	Val	Phe	Leu	Gly	Glu	
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gtg atc att tct ctg gcc acg tgg gac ttt gaa gac agc aca aca cag Val Ile Ile Ser Leu Ala Thr Trp Asp Phe Glu Asp Ser Thr Thr Gln 145 150 155 160	480
tcc ttc cgc tgg cat ccg ctc cgg gcc aag gcg gag aaa tac gaa gac Ser Phe Arg Trp His Pro Leu Arg Ala Lys Ala Glu Lys Tyr Glu Asp 165 170 175	528
agc gtt cct cag agt aat gga gag ctc aca gtc cgg gct aag ctg gtt Ser Val Pro Gln Ser Asn Gly Glu Leu Thr Val Arg Ala Lys Leu Val 180 185 190	576
ctc cct tca cgg ccc aga aaa ctc caa gag gct caa gaa ggg aca gat Leu Pro Ser Arg Pro Arg Lys Leu Gln Glu Ala Gln Glu Gly Thr Asp 195 200 205	624
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aat tta cct gtg cgg cca gat ggc acc ttg aac tca ttt gtt aag ggc Asn Leu Pro Val Arg Pro Asp Gly Thr Leu Asn Ser Phe Val Lys Gly 225 230 235 240	720
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ggc gta acc cca gct cag ctg agg cag tcg agc ttg gag tta act gtc Gly Val Thr Pro Ala Gln Leu Arg Gln Ser Ser Leu Glu Leu Thr Val 275 280 285	864
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aca gac atg act ctt gtc ctg cac tgacatgaag gcctcaaggt tccaggttgc Thr Asp Met Thr Leu Val Leu His 340	1062
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 His Tyr Cys Phe Lys Thr His Ser Leu Glu Ile Cys Ile Lys Ala Cys
 50 55 60
 Lys Asn Leu Ala Tyr Gly Glu Glu Lys Lys Lys Cys Asn Pro Tyr
 65 70 75 80
 Val Lys Thr Tyr Leu Leu Pro Asp Arg Ser Ser Gln Gly Lys Arg Lys
 85 90 95
 Thr Gly Val Gln Arg Asn Thr Val Asp Pro Thr Phe Gln Glu Thr Leu
 100 105 110
 Lys Tyr Gln Val Ala Pro Ala Gln Leu Val Thr Arg Gln Leu Gln Val
 115 120 125
 Ser Val Trp His Leu Gly Thr Leu Ala Arg Arg Val Phe Leu Gly Glu
 130 135 140
 Val Ile Ile Ser Leu Ala Thr Trp Asp Phe Glu Asp Ser Thr Thr Gln
 145 150 155 160
 Ser Phe Arg Trp His Pro Leu Arg Ala Lys Ala Glu Lys Tyr Glu Asp
 165 170 175
 Ser Val Pro Gln Ser Asn Gly Glu Leu Thr Val Arg Ala Lys Leu Val
 180 185 190
 Leu Pro Ser Arg Pro Arg Lys Leu Gln Glu Ala Gln Glu Gly Thr Asp
 195 200 205
 Gln Pro Ser Leu His Gly Gln Leu Cys Leu Val Val Leu Gly Ala Lys
 210 215 220
 Asn Leu Pro Val Arg Pro Asp Gly Thr Leu Asn Ser Phe Val Lys Gly
 225 230 235 240
 Cys Leu Thr Leu Pro Asp Gln Gln Lys Leu Arg Leu Lys Ser Pro Val
 245 250 255
 Leu Arg Lys Gln Ala Cys Pro Gln Trp Lys His Ser Phe Val Phe Ser
 260 265 270
 Gly Val Thr Pro Ala Gln Leu Arg Gln Ser Ser Leu Glu Leu Thr Val
 275 280 285
 Trp Asp Gln Ala Leu Phe Gly Met Asn Asp Arg Leu Leu Gly Gly Thr
 290 295 300
 Arg Leu Gly Ser Lys Gly Asp Thr Ala Val Gly Gly Asp Ala Cys Ser
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Leu Ser Lys Leu Gln Trp Gln Lys Val Leu Ser Ser Pro Asn Leu Trp
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Thr Asp Met Thr Leu Val Leu His
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<220>
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 Lys Gly Pro Cys Gln Arg Val Gln Pro Gly Lys Leu Arg Val Gln Cys
 20 25 30
 agc acc tgc agg cag gca acg ctc acc ttg acc cag ggt cca tct tgc 144
 Ser Thr Cys Arg Gln Ala Thr Leu Thr Leu Thr Gln Gly Pro Ser Cys
 35 40 45
 tgg gat gat gtt tta att cca aac cgg atg agt ggt gaa tgc caa tcc 192
 Trp Asp Asp Val Leu Ile Pro Asn Arg Met Ser Gly Glu Cys Gln Ser
 50 55 60
 cca cac tgc cct ggg act agt gca gaa ttt ttc ttt aaa tgt gga gca 240
 Pro His Cys Pro Gly Thr Ser Ala Glu Phe Phe Phe Lys Cys Gly Ala
 65 70 75 80
 cac ccc acc tct gac aag gaa aca tca gta gct ttg cac ctg atc gca 288
 His Pro Thr Ser Asp Lys Glu Thr Ser Val Ala Leu His Leu Ile Ala
 85 90 95
 aca aat agt cgg aac atc act tgc att acg tgc aca gac gtc agg agc 336
 Thr Asn Ser Arg Asn Ile Thr Cys Ile Thr Cys Thr Asp Val Arg Ser
 100 105 110
 ccc gtc ctg gtt ttc cag tgc aac tcc cgc cac gtg att tgc tta gac 384
 Pro Val Leu Val Phe Gln Cys Asn Ser Arg His Val Ile Cys Leu Asp
 115 120 125
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 Cys Phe His Leu Tyr Cys Val Thr Arg Leu Asn Asp Arg Gln Phe Val
 130 135 140
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 <212> PRT
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 35 40 45
 Trp Asp Asp Val Leu Ile Pro Asn Arg Met Ser Gly Glu Cys Gln Ser
 50 55 60
 Pro His Cys Pro Gly Thr Ser Ala Glu Phe Phe Phe Lys Cys Gly Ala
 65 70 75 80
 His Pro Thr Ser Asp Lys Glu Thr Ser Val Ala Leu His Leu Ile Ala
 85 90 95
 Thr Asn Ser Arg Asn Ile Thr Cys Ile Thr Cys Thr Asp Val Arg Ser
 100 105 110
 Pro Val Leu Val Phe Gln Cys Asn Ser Arg His Val Ile Cys Leu Asp
 115 120 125
 Cys Phe His Leu Tyr Cys Val Thr Arg Leu Asn Asp Arg Gln Phe Val
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 145 150 155

<210> 5
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 <212> DNA
 <213> Artificial sequence

<220>
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<400> 5
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<210> 6
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 <212> DNA
 <213> Artificial sequence

<220>
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<210> 7
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 <212> DNA
 <213> Artificial sequence

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<210> 8
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 <212> DNA

<213> Artificial sequence

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<223> Description of the artificial sequence:Oligonucleotide

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<210> 9

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<213> Artificial sequence

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<223> Description of the artificial sequence:Oligonucleotide

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<210> 10

<211> 18

<212> DNA

<213> Artificial sequence

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<223> Description of the artificial sequence:Oligonucleotide

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<210> 11

<211> 28

<212> DNA

<213> Artificial sequence

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<223> Description of the artificial sequence:Oligonucleotide

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<210> 12

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 12

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<210> 13
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Gly Ala Lys Asn Thr Asp Trp Glu His Lys Glu Lys Cys Cys Ala
 50 55 60
 Arg Cys Gln Gln Val Leu Gly Phe Leu Leu His Arg Gly Ala Val Cys
 65 70 75 80
 Arg Gly Cys Ser His Arg Val Cys Ala Gln Cys Arg Val Phe Leu Arg
 85 90 95
 Gly Thr His Ala Trp Lys Cys Thr Val Cys Phe Glu Asp Arg Asn Val
 100 105 110
 Lys Ile Lys Thr Gly Glu Trp Phe Tyr Glu Glu Arg Ala Lys Lys Phe
 115 120 125
 Pro Thr Gly Gly Lys His Glu Thr Val Gly Gly Gln Leu Leu Gln Ser
 130 135 140
 Tyr Gln Lys Leu Ser Lys Ile Ser Val Val Pro Pro Thr Pro Pro Pro
 145 150 155 160

Val Ser Glu Ser Gln Cys Ser Arg Ser Pro Gly Arg Leu Gln Glu Phe
 165 170 175
 Gly Gln Phe Arg Gly Phe Asn Lys Ser Val Glu Asn Leu Phe Leu Ser
 180 185 190
 Leu Ala Thr His Val Lys Lys Leu Ser Lys Ser Gln Asn Asp Met Thr
 195 200 205
 Ser Glu Lys His Leu Leu Ala Thr Gly Pro Arg Gln Cys Val Gly Gln
 210 215 220
 Thr Glu Arg Arg Ser Gln Ser Asp Thr Ala Val Asn Val Thr Thr Arg
 225 230 235 240
 Lys Val Ser Ala Pro Asp Ile Leu Lys Pro Leu Asn Gln Glu Asp Pro
 245 250 255
 Lys Cys Ser Thr Asn Pro Ile Leu Lys Gln Gln Asn Leu Pro Ser Ser
 260 265 270
 Pro Ala Pro Ser Thr Ile Phe Ser Gly Gly Phe Arg His Gly Ser Leu
 275 280 285
 Ile Ser Ile Asp Ser Thr Cys Thr Glu Met Gly Asn Phe Asp Asn Ala
 290 295 300
 Asn Val Thr Gly Glu Ile Glu Phe Ala Ile His Tyr Cys Phe Lys Thr
 305 310 315 320
 His Ser Leu Glu Ile Cys Ile Lys Ala Cys Lys Asn Leu Ala Tyr Gly
 325 330 335
 Glu Glu Lys Lys Lys Lys Cys Asn Pro Tyr Val Lys Thr Tyr Leu Leu
 340 345 350
 Pro Asp Arg Ser Ser Gln Gly Lys Arg Lys Thr Gly Val Gln Arg Asn
 355 360 365
 Thr Val Asp Pro Thr Phe Gln Glu Thr Leu Lys Tyr Gln Val Ala Pro
 370 375 380
 Ala Gln Leu Val Thr Arg Gln Leu Gln Val Ser Val Trp His Leu Gly
 385 390 395 400
 Thr Leu Ala Arg Arg Val Phe Leu Gly Glu Val Ile Ile Pro Leu Ala
 405 410 415
 Thr Trp Asp Phe Glu Asp Ser Thr Thr Gln Ser Phe Arg Trp His Pro
 420 425 430
 Leu Arg Ala Lys Ala Glu Lys Tyr Glu Asp Ser Val Pro Gln Ser Asn
 435 440 445
 Gly Glu Leu Thr Val Arg Ala Lys Leu Val Leu Pro Ser Arg Pro Arg
 450 455 460
 Lys Leu Gln Glu Ala Gln Glu Gly Thr Asp Gln Pro Ser Leu His Gly
 465 470 475 480
 Gln Leu Cys Leu Val Val Leu Gly Ala Lys Asn Leu Pro Val Arg Pro
 485 490 495

Asp Gly Thr Leu Asn Ser Phe Val Lys Gly Cys Leu Thr Leu Pro Asp
 500 505 510
 Gln Gln Lys Leu Arg Leu Lys Ser Pro Val Leu Arg Lys Gln Ala Cys
 515 520 525
 Pro Gln Trp Lys His Ser Phe Val Phe Ser Gly Val Thr Pro Ala Gln
 530 535 540
 Leu Arg Gln Ser Ser Leu Glu Leu Thr Val Trp Asp Gln Ala Leu Phe
 545 550 555 560
 Gly Met Asn Asp Arg Leu Leu Gly Gly Thr Arg Leu Gly Ser Lys Gly
 565 570 575
 Asp Thr Ala Val Gly Gly Asp Ala Cys Ser Gln Ser Lys Leu Gln Trp
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 Gln Lys Val Leu Ser Ser Pro Asn Leu Trp Thr Asp Met Thr Leu Val
 595 600 605
 Leu His
 610

<210> 14
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<213> Homo sapiens

<400> 15

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35 40 45
Tyr Val Lys Thr Tyr Leu Leu Pro Asp Arg Ser Ser Gln Gly Lys Arg
50 55 60
Lys Thr Gly Val Gln Arg Asn Thr Val Asp Pro Thr Phe Gln Glu Thr
65 70 75 80
Leu Lys Tyr Gln Val Ala Pro Ala Gln Leu Val Thr Arg Gln Leu Gln
85 90 95
Val Ser Val Trp His Leu Gly Thr Leu Ala Arg Arg Val Phe Leu Gly
100 105 110
Glu Val Ile Ile Pro Leu Ala Thr Trp Asp Phe Glu Asp Ser Thr Thr
115 120 125
Gln Ser Phe Arg Trp His Pro Leu Arg Ala Lys Ala Glu Lys Tyr Glu
130 135 140
Asp Ser Val Pro Gln Ser Asn Gly Glu Leu Thr Val Arg Ala Lys Leu
145 150 155 160
Val Leu Pro Ser Arg Pro Arg Lys Leu Gln Glu Ala Gln Glu Gly Thr
165 170 175
Asp Gln Pro Ser Leu His Gly Gln Leu Cys Leu Val Val Leu Gly Ala
180 185 190
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 <220>
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 <220>
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<400> 27
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<400> 28
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<210> 30
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<210> 36
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<210> 38
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<210> 39
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<210> 40
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 <213> Homo sapiens

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 Lys Gly Ala Lys Asn Thr Asp Trp Glu His Lys Glu Lys Cys Cys Ala
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 Arg Cys Gln Gln Val Leu Gly Phe Leu Leu His Arg Gly Ala Val Cys
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Gly Thr His Ala Trp Lys Cys Thr Val Cys Phe Glu Asp Arg Asn Val
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 Thr Val Asp Pro Thr Phe Gln Glu Thr Leu Lys Tyr Gln Val Ala Pro
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 Ala Gln Leu Val Thr Arg Gln Leu Gln Val Ser Val Trp His Leu Gly
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435

440

445

Gly Glu Leu Thr Val Arg Ala Lys Leu Val Leu Pro Ser Arg Pro Arg
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Lys Leu Gln Glu Ala Gln Glu Gly Thr Asp Gln Pro Ser Leu His Gly
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Gln Leu Cys Leu Val Val Leu Gly Ala Lys Asn Leu Pro Val Arg Pro
485 490 495

Asp Gly Thr Leu Asn Ser Phe Val Lys Gly Cys Leu Thr Leu Pro Asp
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Gln Gln Lys Leu Arg Leu Lys Ser Pro Val Leu Arg Lys Gln Ala Cys
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Pro Gln Trp Lys His Ser Phe Val Phe Ser Gly Val Thr Pro Ala Gln
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Leu Arg Gln Ser Ser Leu Glu Leu Thr Val Trp Asp Gln Ala Leu Phe
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Gly Met Asn Asp Arg Leu Leu Gly Gly Thr Arg Leu Gly Ser Lys Gly
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Asp Thr Ala Val Gly Gly Asp Ala Cys Ser Gln Ser Lys Leu Gln Trp
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Leu His
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<211> 1648

<212> DNA

<213> Homo sapiens

<400> 44

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 <213> Homo sapiens

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 35 40 45
 Tyr Val Lys Thr Tyr Leu Leu Pro Asp Arg Ser Ser Gln Gly Lys Arg
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 Lys Thr Gly Val Gln Arg Asn Thr Val Asp Pro Thr Phe Gln Glu Thr
 65 70 75 80
 Leu Lys Tyr Gln Val Ala Pro Ala Gln Leu Val Thr Arg Gln Leu Gln
 85 90 95
 Val Ser Val Trp His Leu Gly Thr Leu Ala Arg Arg Val Phe Leu Gly
 100 105 110
 Glu Val Ile Ile Pro Leu Ala Thr Trp Asp Phe Glu Asp Ser Thr Thr
 115 120 125
 Gln Ser Phe Arg Trp His Pro Leu Arg Ala Lys Ala Glu Lys Tyr Glu
 130 135 140
 Asp Ser Val Pro Gln Ser Asn Gly Glu Leu Thr Val Arg Ala Lys Leu
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 Val Leu Pro Ser Arg Pro Arg Lys Leu Gln Glu Ala Gln Glu Gly Thr
 165 170 175
 Asp Gln Pro Ser Leu His Gly Gln Leu Cys Leu Val Val Leu Gly Ala
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 Lys Asn Leu Pro Val Arg Pro Asp Gly Thr Leu Asn Ser Phe Val Lys
 195 200 205
 Gly Cys Leu Thr Leu Pro Asp Gln Gln Lys Leu Arg Leu Lys Ser Pro
 210 215 220
 Val Leu Arg Lys Gln Ala Cys Pro Gln Trp Lys His Ser Phe Val Phe
 225 230 235 240
 Ser Gly Val Thr Pro Ala Gln Leu Arg Gln Ser Ser Leu Glu Leu Thr
 245 250 255
 Val Trp Asp Gln Ala Leu Phe Gly Met Asn Asp Arg Leu Leu Gly Gly
 260 265 270

Thr Arg Leu Gly Ser Lys Gly Asp Thr Ala Val Gly Gly Asp Ala Cys
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Ser Gln Ser Lys Leu Gln Trp Gln Lys Val Leu Ser Ser Pro Asn Leu
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Trp Thr Asp Met Thr Leu Val Leu His
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 <213> Artificial Sequence

<220>
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 <213> Homo sapiens

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105

110

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 195 200 205

Ser Glu Lys His Leu Leu Ala Thr Gly Pro Arg Gln Cys Val Gly Gln
 210 215 220

Thr Glu Arg Arg Ser Gln Ser Asp Thr Ala Val Asn Val Thr Thr Arg
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Asn Val Thr Gly Glu Ile Glu Phe Ala Ile His Tyr Cys Phe Lys Thr
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His Ser Leu Glu Ile Cys Ile Lys Ala Cys Lys Asn Leu Ala Tyr Gly
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Glu Glu Lys Lys Lys Lys Cys Asn Pro Tyr Val Lys Thr Tyr Leu Leu
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Pro Asp Arg Ser Ser Gln Gly Lys Arg Lys Thr Gly Val Gln Arg Asn
 Page 22

355

360

365

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Gly Glu Leu Thr Val Arg Ala Lys Leu Val Leu Pro Ser Arg Pro Arg
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Gln Leu Cys Leu Val Val Leu Gly Ala Lys Asn Leu Pro Val Arg Pro
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Gln Gln Lys Leu Arg Leu Lys Ser Pro Val Leu Arg Lys Gln Ala Cys
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Pro Gln Trp Lys His Ser Phe Val Phe Ser Gly Val Thr Pro Ala Gln
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Leu Arg Gln Ser Ser Leu Glu Leu Thr Val Trp Asp Gln Ala Leu Phe
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Lys Ile Lys Thr Gly Glu Trp Phe Tyr Glu Glu Arg Ala Lys Lys Phe
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 Glu Asp Ser Thr Thr Gln Ser Phe Arg Trp His Pro Leu Arg Ala Lys
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 Val Arg Ala Lys Leu Val Leu Pro Ser Arg Pro Arg Lys Leu Gln Glu
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